

**Cross-Linked Heparin Coatings and Methods**

**ABSTRACT OF THE DISCLOSURE**

5        A thromboresistant coating for a medical device, method of coating and coated medical device, the coating including an *in situ* cross-linked co-polymer of a cross-linkable biomolecule, preferably an adsorbable biomolecule such as a heparin activity biomolecule with at least one prosthetic hydrophobic unit, and a multifunctional crosslinking agent, such as a *bis*-variant of polyethylene glycol, polyethylene oxide, or polyethylene glycol, wherein the crosslinking is by means of covalent complexation through at

10      least two functional groups of the multifunctional crosslinking agent.